

SYSTEM AND METHOD FOR REALLOCATING A
TRAFFIC CHANNEL IN SOFT HANDOFF STATE

ABSTRACT OF THE DISCLOSURE

There is disclosed, for use in a CDMA wireless network, a
5 channel resource allocator for reallocating a data traffic channel
in a soft handoff state to handle incoming calls from new mobile
stations. The channel resource allocator includes an overhead
channel controller for reconfiguring a data traffic channel as an
overhead channel upon failure of an overhead channel element in a
10 base transceiver station (BTS). The channel resource allocator
determines if all data traffic channels of the BTS are in use. If
so, the channel resource allocator determines whether any of the
existing calls being serviced by the data traffic channels are in
a soft handoff state in which the call is connected simultaneously
15 to two or more base transceiver stations. If so, the channel
resource allocator drops the connection to the BTS in which the
overhead channel failure occurred, thereby freeing up the data
traffic channel. The overhead channel controller may then
reconfigure the dropped data traffic channel as an overhead
20 channel, or the channel resource allocator may reallocate the
dropped data traffic channel to handle a new incoming call from a
mobile station.